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Fertilization of synergids.—Occasional anomalies have been noted even in 8-nucleate embryo sacs developed from a single megaspore. Persidski⁷ describes additional cases in *Delphinium elatum*. Usually the development of the sac is normal, the egg having a vacuole at its micropylar end, while the synergids have the vacuole at the opposite end. In some cases the position of the vacuoles is reversed, so that the synergids have the organization of eggs and the egg has the appearance of a synergid. One case is figured in which the two male nuclei are fusing with the nuclei of two such synergids. It will be remembered that Guignard figured two embryos of *Naias major* which may have arisen in this way. Persidski also figures an egg apparatus of five cells; three eggs and two synergids. This emphasizes what most of us have long believed, that the various nuclei of the sac are homologous and may replace each other in function.—Charles J. Chamberlain.

A new Araucarioxylon.—Dr. Stopes⁸ has described a new Araucarioxylon (A. novae-zelandii) from the Cretaceous of New Zealand. It is described as new because it differs greatly from the more imperfect specimens of fossil araucarians hitherto recorded from that region. Its chief differential feature is the extreme development of the rows of thickened tracheids on either side of the rays, which are filled with large "resin-spools." By "resin-spools" is meant deposits of resin in the form of large disks opposite the middle of the pith rays, the lateral extensions of these disks running up and down the containing wall for some distance. The new species has also much more regular and strongly marked annual rings than usual among araucarians, which is held to be good evidence that New Zealand had well marked seasons during the Middle Cretaceous.—J. M. C.

Cases of suspended vitality.—Buller and Cameron⁹ have recorded some remarkable cases of suspended vitality. They have shown that the "fruit bodies" of *Daedalea bicolor* can retain their vitality when dried, kept in the dark, and exposed to ordinary air at room temperatures, for at least seven and a half years; while those of *Schizophyllum commune* endured the same treatment for at least five years and seven months. The fruit bodies of the latter fungus, after previous drying by exposure to phosphorus pentoxide *in vacuo*, retained their vitality after being kept for 16.5 months in a vacuum at a pressure of not more than 0.1 mm. of mercury, in the dark at room temperatures;

⁷ Persidski, D., Einige Fälle anomaler Bildung des Embryosackes bei *Delphinium elatum*. Mém. Soc. Nat. Kiew 23:97–112. figs. 6. 1914.

⁸ Stopes, Marie C., A new *Araucarioxylon* from New Zealand. Ann. Bot. 28: 341–350. figs. 3. pl. 20. 1914.

⁹ Buller, A. H. Reginald, and Cameron, A. T., On the temporary suspension of vitality in the fruit bodies of certain Hymenomycetes. Trans. Roy. Soc. Canada 6:73-78. 1912.